

**PROPOSE ONLINE COURSE REGISTRATION
FOR NATIONAL UNIVERSITY OF HANOI (NUH)**

By

NGUYEN THI XUAN THUY

Dissertation submitted in partial fulfillment of
The requirement for the Bachelor of Technology (Hons)
(BUSINESS INFORMATION SYSTEM)

DECEMBER 2006

UNIVERSITY TECHNOLOGY OF PETRONAS
BANDAR SERI ISKANDAR

31750 TRONOH, PERAK

December 2006

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1) PHP (Computer Program Language)
2) Internet programming

**CERTIFICATION OF APPROVAL
ONLINE COURSE REGISTRATION**

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Dissertation submitted to the
Information Technology Program
University Technology Petronas
in partial fulfillment of the requirement for the
Bachelor of Technology (Hons)
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Approved by

(Dr. Ahmad Kamil Bin Mahmood)

UNIVERSITY TECHNOLOGY PETRONAS
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December 2006

CERTIFICATION OF ORIGINNALITY

This is to certify that I'm responsibility for the worked submitted in this project , that the original work on my own except as specify in the references and acknowledgment , and that the original work contain herein have not undertaken or done by unspecified sources of person.



NGUYEN THI XUAN THUY

Abstract

Currently, Information Technology has been developing in Viet Nam and it now has been openly applied to support education system. But in Viet Nam, most of the University have not built their own webpage except some big University. But the problem is, all the webpage of that University is concern to upload information only and don't have any University use the online system as a link to the website. Especially in University requires highly technology to help administrator to save time and convenience in control the education system. At the moment, all the University in Viet Nam don't have any online course registration. They usually using the paper – based to control the number of students register for the courses. This method takes time and effort for the administration because they can not control exactly how many students in the database and if they want to search for the records of students, they have to find for a long time.

By using the online course registration, administration can save time and easily control the students in university that register for the new courses.

Because in Viet Nam, they never used the online courses registration before , so based on the UTP online course registration as a reference to build a new system for National University of Hanoi. Since then, all the other university can follow and use it to reduce the works process manually. Beside that, from the current system which UTP is using, a new system will be build to suit with the context of university in Vietnam.

It is hoping that, by building this system we can apply it to the education system in Viet Nam and will benefit to the social, to the students and university in control the students.

This document will cover the background study of the project, problem statement, literature review and methodology is being used to build this project. The main tools need to develop this project is html tool and PHP.

ACKNOWLEDGEMENT

First of all, I would like to express my gratitude to the Jesus Christ for giving me the strength, wisdom and patient to complete this final year project.

Secondly, I want to thanks to Dr. Kamil , (head of IT/IS Program) has supervise and guidance me during two semesters. His experiences, knowledge help me a lot and this final year project is complete have important guideline from him. Thanks to all UTP lecturers have support me to finish this final year project.

Especially, I must thank my beloved parents, my family whom give me the inspiration and strength to complete this project.

Lastly, I would like to thanks my roommate, my special friend in UTP for helping me to understand and during the project development of the project they support me without any purposely. And thanks to all person who has involved and contribute to this project.

Thank you very much.

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CHAPTER 1

INTRODUCTION

Nowadays, with the advanced of technology most of the company and organization using e-system to replace the old system which is paper based to reduce the cost. And by building this system, we can apply it to the education system in Viet Nam to improve the security and avoid the ability of lost data. Based on the current system which UTP is using, the new system will be applied and can be used in University in Viet Nam. Before that, in Viet Nam, they don't use any system to support for undergraduate student. Most of the works is done manually and requires a lot of man power.

Currently I'm final year student and have been using the "online course registration for many year, so based on the system that UTP is using as a infrastructure to build a completed system for National University of Hanoi (Viet Nam).

National University of Hanoi is the biggest University in Viet Nam about Technology and. The total number of student in University is 20,000. So, for every new semester start, students need to register by form and submit to the Academic Center of University. It's take time and trouble for staffs to handle and process all that form for 20000 student in University.

In general, this project will develop the system with high security as well as much functionality that full fills the students' requirement and suitable with the context of Viet Nam background. And by develop this system, staff can reduce amount of time working with paper – based.

1.1 Background study of this project.

In Viet Nam, National University of Hanoi is the first University using the website to promote their image and information about the University and activity is occurring. In the website of NUH, there has been no functionality at all like others big University in others country to support education system. This is the biggest problem and now the board of director of University wants to build some functionality for the website. And they choose to build the “Online course Registration” as a first choice because every year, a thousands students have to register for the courses using manually. It’s take long time for staff to process with number of data. If there has been errors or mistaken by student, they have to change and usually the changing take at least one month. And that time, the semester already started.

The purpose of this project is to propose an “online course registration” for NUH with the ability to provide a user friendly, high security and stable database to store information and records of students.

This project will be implemented with the criteria as below:

1. User friendly
2. High security
3. Data integrity
4. Convenience

1.2 Problem statement

As the research and evaluation of the UTP “online course registration” system, some weakness have been found and to reduce all these weakness in this new system I have propose and jot down some issues need to concern when building the system for NUH. There are three problems issues needs to concern about are: User friendly issues, Security Issues, and Convenience ness issues.

a. User friendly Issues

In the system building for NUH, this issue is important because as a study about UTP “online course registration” some cases has been occur due to the user friendly issues such as: The system lack of user friendly factor and this is the reason why the students don’t know how to register and make a lot of mistakes. Especially when they making transaction to register the course from the tab function, they usually forgot the refresh and tick too many course at the same time. The current system also lack of instructions for student first time register. One student register the course, they don’t have chance to redo if they make mistake and then they have to wait until the next semester to drop the course.

This problem can be reduce by create a user friendly GUI so the errors can be limited or eliminated.

b. Security Issues

One of the problem of the current system is does not contains the security. If one student knows their friend’s ID, they can register without the permission and may make the wrong information. If each student has they own username and password they can protect their data in the database and does not have to worry about someone will register mistaken. This mistake can cause a lot of trouble the administrator.

So that, when develop this system user will have an account to access to the system and make transaction. Data and information about the students will be keep secretly and safety.

c. Convenience ness Issues

Another weakness of the UTP “online course registration” system is less convenience for user. When user register finished register for the course, they cannot see the result and how many course has been successful registered. And they have only one chance to register, anything change will be done after that nearly two month. This amount of time is long and it can affect the planning of the student.

So, I propose that the system administrator and Academic center need to work together to set the time or period to register for the course. May be one or two week before new semester break started. Then , student can register, add or drop for the course many time within the registration period. After the registration period, the system will be close for controller to process data collected. And student doesn't have to add drop many time and no waiting time.

1.3 Objective and Scope of the Study.

The significant of this project is to build a user friendly system for National University of Hanoi (NUH) and fulfill all the requirement and problem issue in the earlier part of this project. The main objective of this project is to build “online course registration” systems that allow students to register for the courses and lab online. The system could be build base on four criteria below:

a. Data integrity.

A thorough error checking module will be implemented throughout the processes of the system to ideally eliminate all conditions which would cause errors in the system. Students will be immediately informed when they make mistakes regarding their course registration and will not be able to proceed until they have entered the appropriate information and performed the relevant criteria. Therefore, they will be notified of their mistakes immediately and not cause further complications in the later processes which would incur greater usage of resources when it comes to making amendments to avoidable errors in the first place.

b. Data security.

Granting individual access rights to students of the system would avoid unauthorized access to other students' accounts. This restricts students from registering courses or making amendments for others either deliberately or by keying in another person's identification details by mistake. Meanwhile, only individual students can have access to their own information and prevent information misuse by others.

c. Data reliability.

The newly evolved system would have immediate updates concerning the course registration processes and not have its students waiting for the system to periodically update its database before displaying the list of updated courses registered. They would be informed of their acceptance of their registered courses and be able to make the necessary changes towards their timetables or courses where they would consider appropriate. Other advantages include immediately being notified of mistakes during the add drop period and make sure that the Academic Services Department would not use any erroneous information for billing or examination purposes.

d. Updated information resources.

With the new system, a vast resource of vital information would be provided to its students at their own ease as opposed to the current booklet guides and programme booklets which are handed out every semester. The web browser will display important information of students such as the total credit hours they have completed so far, their current Cumulative Grade Point Average (CGPA) and others. With computerized information, data is organized in a more meaningful manner depending on the needs of its varying students such as undergraduates, foundation programme students, final year students, students who are going to take their industrial internship and also postgraduate students. Tips and guidelines will be provided upon students' requests online such as registration guidelines, course information and their prerequisites, registration for lab sessions, course timetables, programmer structures and contact details of various individuals who are handling the courses should there be anything to be clarified concerning their courses.

CHAPTER 2

LITERATURE REVIEW

2.1 General about National University of Hanoi

National University of Hanoi (NUH) is the first modern university established in Vietnam. NUH has undergone various development stages: the University of Indochina established on 16 May, 1906; Vietnam National University (November, 1945); the University of Hanoi (June, 1956). In December, 1993, VNU was reorganized on the basis of amalgamating the University of Hanoi, Foreign Language Teachers' Training College (established in 1967) and other leading universities in Hanoi.

NUH is the largest multidisciplinary higher educational and research centre in Vietnam. NUH is entrusted with the task of producing qualified human resources for the industrialization and modernization of the country. NUH holds a special position in the system of tertiary education in Vietnam, operating according to a special regulation promulgated by the Prime Minister. NUH reports directly to the Prime Minister and has the high autonomy in organization - personnel, training programs, scientific research and technological development, planning - finance, international relations and other fields. VNU is entitled to work directly with ministries, ministerial level organizations, governmental bodies, people's committees of central cities and provinces concerning affairs related to NUH. NUH colleges and institutes maintain their juridical person status of a higher education and scientific research institution as regulated by the Law on Education and the Law on Science-Technology.

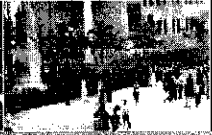




The Information Technology Institute (ITI) was established in 2001 on the basis of reorganizing Vietnam Information Technology Training Institute (VITTI) which has successfully carried out the "Project on Vietnam Information Technology Training" in a close and effective coordination with Japan International Cooperation Agency (JICA) under the financial support from the Japanese Government.

By building the new system call “Online Course Registration”, it can help administration to control and tracking the amount of students register for every year.

2.2 Characteristics of University National of Hanoi

In the main website of UNH, which have only the information about the news, what is upcoming event and does not have any function to support the education system. The main web is below:

ĐẠI HỌC QUỐC GIA HÀ NỘI



[Home](#) [Enrolment](#) [News & Events](#) [Service](#) [Directories](#) [Guideline](#) [Search](#) [Vietnamese](#)

[Introduction](#) [Organization](#) [R&D](#) [Training](#) [Training Programs](#) [International](#) [Map](#)

Introduction

History

Missions

Academic orientation

Organizational structure

- Organizational chart
- YNU's Board
- President and Vice-Presidents
- Trade union and Youth union
- Students association
- Training and scientific council
- Office of the President and functional departments
- Colleges
- Affiliated faculties
- Research institutes
- Training and research centres
- Service units

YNU's campuses

Contact address

1 Information Technology Institute

2 Institute of Vietnamese Studies and Development Sciences

INSTITUTE OF INFORMATION TECHNOLOGY

Address: Building E3, 144 Xuan Thuy Rd., Cau Giay, Hanoi

Tel: (84-4) 7680498 - 7681879 - 7680501 - 7680500 - 7681347

Fax: (04) 7681347

E-mail: iti@vnu.edu.vn

Web site: www.iti.vnu.edu.vn

Director

Prof.Dr.Sc. Dinh Dung

Deputy Director:

Assc.Prof.Dr. Nguyen Dinh Hoa

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<div> <div>Yearly important events</div> <div>Map</div> <div>Searching books</div> <div>Q&A</div> </div>	<p>The Information Technology Institute (ITI) was established in 2001 on the basis of reorganizing Vietnam Information Technology Training Institute (VITTI) which has successfully carried out the "Project on Vietnam Information Technology Training" in a close and effective coordination with Japan International Cooperation Agency (JICA) under the financial support from the Japanese Government.</p> <p>MANDATE</p> <ul style="list-style-type: none"> • To carry out R&D projects in the fields of information technology; • To offer Master, Ph.D training programs and short-term training courses on information and technology; and • To operate and manage VNU net. <p>DIVISIONS AND CENTRES</p> <ul style="list-style-type: none"> - Multimedia Technology Division - Software Technology Division - VNU Net Management Centre
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UNH not provide any services to support student. If student want to register for the courses, they have to go to the main office and register manually. This is inconvenience and time consuming. So, it is necessary for NUH to build some small system such as “online course registration” to help students and staffs to use computer to works and support for their study.

2.3 Introduction about University Technology Petronas

Universiti Teknologi PETRONAS (UTP) was established on January 10, 1997 when PETRONAS was invited by the Malaysian government to set up a university.

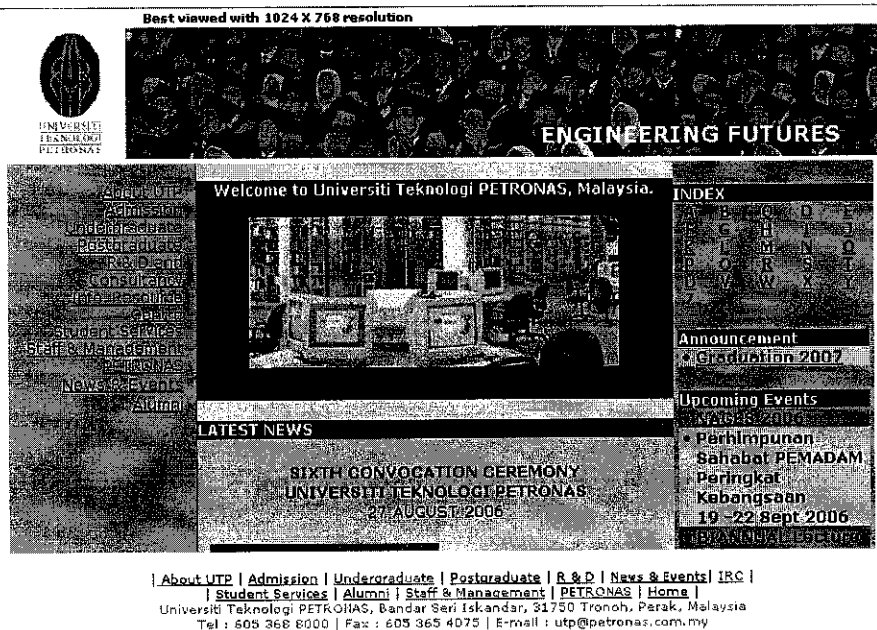
The campus is built on a 400 hectare (1,000 acre) site strategically located at Bandar Seri Iskandar, Perak Darul Ridzuan, Malaysia. The university is a wholly-owned subsidiary of PETRONAS, the national oil company of Malaysia.

UTP offers a wide range of engineering and technology programmes at undergraduate and postgraduate levels complemented with a strong focus on Research and Development. The programmes are designed with high industry relevance to provide a dynamic learning environment.

The University community comprises of students and staff from various countries and is located in a beautifully landscaped setting, amidst the new township of Seri Iskandar. Its peaceful environment, wide open spaces and abundant lakes make these serene surroundings an ideal place to study.

Homepage of UTP

Best viewed with 1024 X 768 resolution



UNIVERSITI TEKNOLOGI PETRONAS

ENGINEERING FUTURES

Welcome to Universiti Teknologi PETRONAS, Malaysia.

INDEX

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Z				

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Graduation 2007

Upcoming Events
19-22 Sept 2006
Perhimpunan Sahabat PEMADAM Peringkat Kebangsaan

LATEST NEWS
SIXTH CONVOCATION CEREMONY
UNIVERSITI TEKNOLOGI PETRONAS
27 AUGUST 2006

About UTP | Admission | Undergraduate | Postgraduate | R & D | News & Events | IRC |
Student Services | Alumni | Staff & Management | PETRONAS | Home |
Universiti Teknologi PETRONAS, Bandar Seri Iskandar, 31750 Tronoh, Perak, Malaysia
Tel : 605 368 8000 | Fax : 605 365 4075 | E-mail : utp@petronas.com.my

UTP has a stable platform and high technology, education system and a user friendly website which support all the necessary requirement of students and lecturers, staffs. Currently, UTP also using "Online Course Registration" but the system not fully hundred percent working properly and satisfy the students need. Some weaknesses have been occurs and cause many trouble to students and administrator.

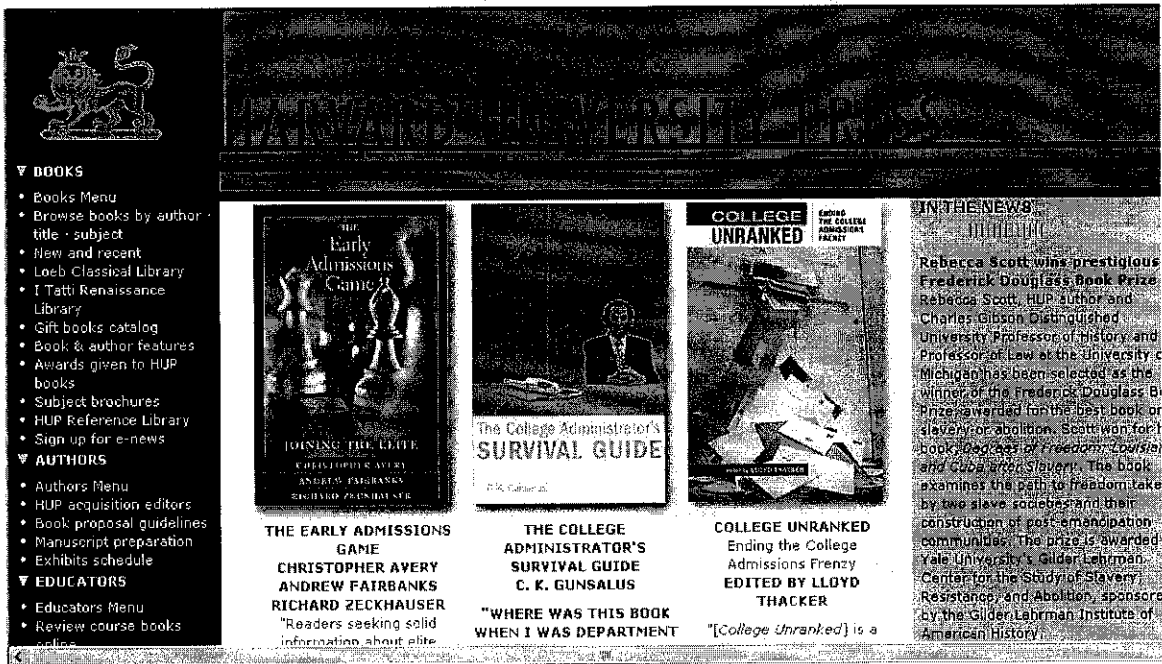
Board of Director in UTP has considered upgrading the current system to have a better system in the future.

2.4 Harvard University Press

Harvard University Press is the biggest University in the world in many perspectives such as the quality of education and provides the human resource for all the faculty.

The reason why HUP was chosen to compare with University National of Hanoi and UTP is because the website of HUP is too perfect and supports all necessary tools for students to improve the study and research.

2.4.1 Homepage of HUP



- Desk and exam copies
- Resources for academic professionals
- Exhibits schedule
- ▼ JOURNALISTS
- Journalists Menu
- HUP Publicity Blog
- Request review copies
- Author events schedule
- Awards given to HUP books
- ▼ RIGHTS
- Rights Menu
- Permissions
- Subsidiary rights
- ▼ INSIDE HUP
- Inside HUP Menu
- History of the Press
- Contact information
- Job opportunities
- HUP Display Room bookstore
- HUP and the Green Press Initiative
- ▼ ORDER
- Order Menu
- Shipping Information
- Frequently Asked Questions

colleges will find *The Early Admissions Game* refreshingly frank. Other readers concerned about restoring some equity to the process will also appreciate the book's generosity of spirit and suggestions for reform. The authors present a devastating portrait of elite college admissions--and early admissions in particular--as an elaborate and complicated 'game.'"

--Peter Sacks, *The Nation*

►read an excerpt

EXTREMELY USEFUL AND COMPREHENSIVE SET OF TOOLS AND SKILLS THAT WOULD HELP ALMOST ANYONE IN ACADEMIC ADMINISTRATION--AND IN A CONVERSATIONAL TONE, WITH A GOOD DOSE OF HUMOR. I FOUND MYSELF LAUGHING ONE MINUTE AND SHAKING MY HEAD IN RECOGNITION THE NEXT. COLLEGES SHOULD BUY THIS BOOK BY THE TRUCKLOAD AND PROVIDE COPIES TO ALL THE POOR SOULS WHO ARE ABOUT TO BE THROWN INTO THE ABYSS OF ACADEMIC ADMINISTRATION. I LEARNED A TREMENDOUS AMOUNT."

--LAURA SCHREIBMAN, FORMER ASSOCIATE CHANCELLOR, UNIVERSITY OF CALIFORNIA AT SAN DIEGO

►READ AN EXCERPT

of the most thoughtful people working in college admissions today...[Thacker] has an unusual perspective, an irresistible writing style and a passion to help students."

--Jay Mathews, *Washington Post*

"These college-insider contributors deride the 'commercialization of college admissions,' the obsession with college 'rankings' and the 'test prep industry' in a compelling critique of college admissions today."

--Eric Arnesen, *Chicago Tribune*

►read an excerpt

►►► Read an excerpt from *Degrees of Freedom*

HUP and the Green Press Initiative

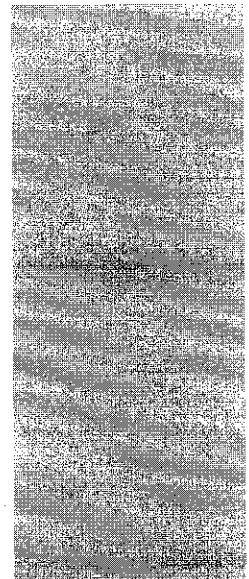
As a publisher of books on science and the environment, Harvard University Press (HUP) is especially aware of its impact of publishing on the environment, particularly regarding use of wood fiber as a source of book paper. In an effort to reduce our use of virgin fiber, we have joined over 100 other U.S. publishers in becoming a member of Green Press Initiative (GPI). GPI is a nonprofit organization working to help publishers and print increase their use of recycled paper and decrease their use of fiber from endangered forests. By signing the GPI's Book Industry Pledge on Responsible Paper Use in 2006, HUP agreed to increase our use of recycled paper containing at least 30% post-consumer waste, from current level, to a 50% average overall by 2011.

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- Ordering Brochures in Specific Disciplines
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- Privacy Policy
- Related Links

search hup site

Look Inside

- HUP Publicity Blog
- RSS Feeds



As user can see that, HUP home page contains a lot of information and other functionality to help student use less paper based and well support for education. For examples, student can ordering for the book online, register for class and can download the exams question for references. They also provides many more functions but if we are outsider and don't have account so we cannot access to the system.

2.5 Comparison between three Universities:

Functionality	UNH	UTP	HUP
Provide Informative	<p>The website provides all the necessary information and activity related to the University only. The website does not contains other reference and help student to gain more knowledge from other sources</p>	<p>The website is not much about the information. The information is just enough for student know what is happening at the moment in UTP</p> <p>Website also provides some important link to help students looking for the research or references.</p>	<p>All the information is upload on the website is meaningful and support for student's study.</p> <p>Not like other University, the information is related to the books and research.</p>
Function in the website	<p>Providing no function at all in the website, even the links.</p> <p>Hundred percent of pure information.</p>	<p>In the website, the information is the most important but they provide some important function under the links. The functionality including "online course registration", "check exams result</p>	<p>The website of HUP is full of functionality such as " ordering book online" or " subject brochure" ,"review course book online", "desk and exams copies " request online.</p>

		online” or “add and drop course” and so on.	
Effective	University of Hanoi website is very poor. They cannot support for student to their study. The web is purely informative and not related much to the education. Most of the information is to promote for the University and activity is happening.	The effective of UTP’s website is moderate. It can fulfill some requirement and using some system inside the web to support for the business. Although not all the sub systems of this web is working properly and satisfy the users.	HUP has a effective website among three website because the web not only introduce about HUP but also support all the ability to help student in study online and reduce the time for students.

CHAPTER 3

Methodology / Project work.

In developing the system, I have been used four main phases in order to guide and keep the project in the flow. The four basic phases are as below:

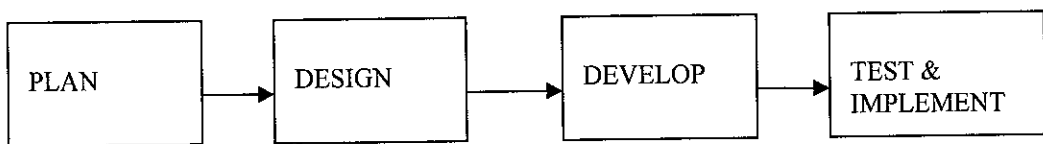


Figure 1 : Project Methodology

3.1 Project Planning and Functional Analysis.

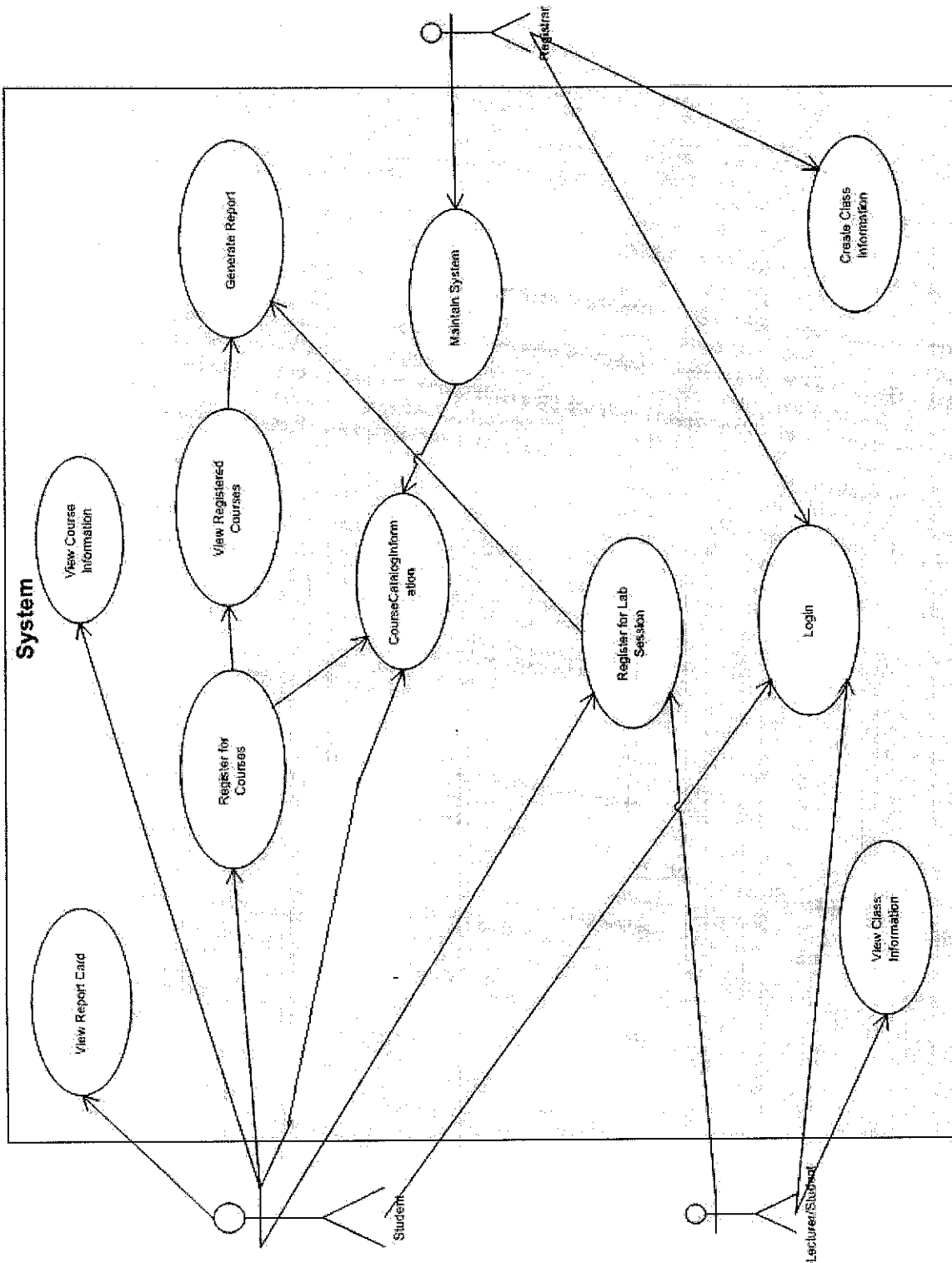
To developing any project, the planning phase is the most important to determine whether the project will success or not. At this phase, there are many things to do such as gathering the information from the survey, collecting the results and analysis to have a better view about the system and create more applicable system.

In this phase, the schedule of the project will be done to save time and afford of developer. To ensure the successful of the project, all the details of the project have to write down and follow. If it has some changing after that, it can affect to the whole project. That's why the planning phase take the longest time together with the develop phase.

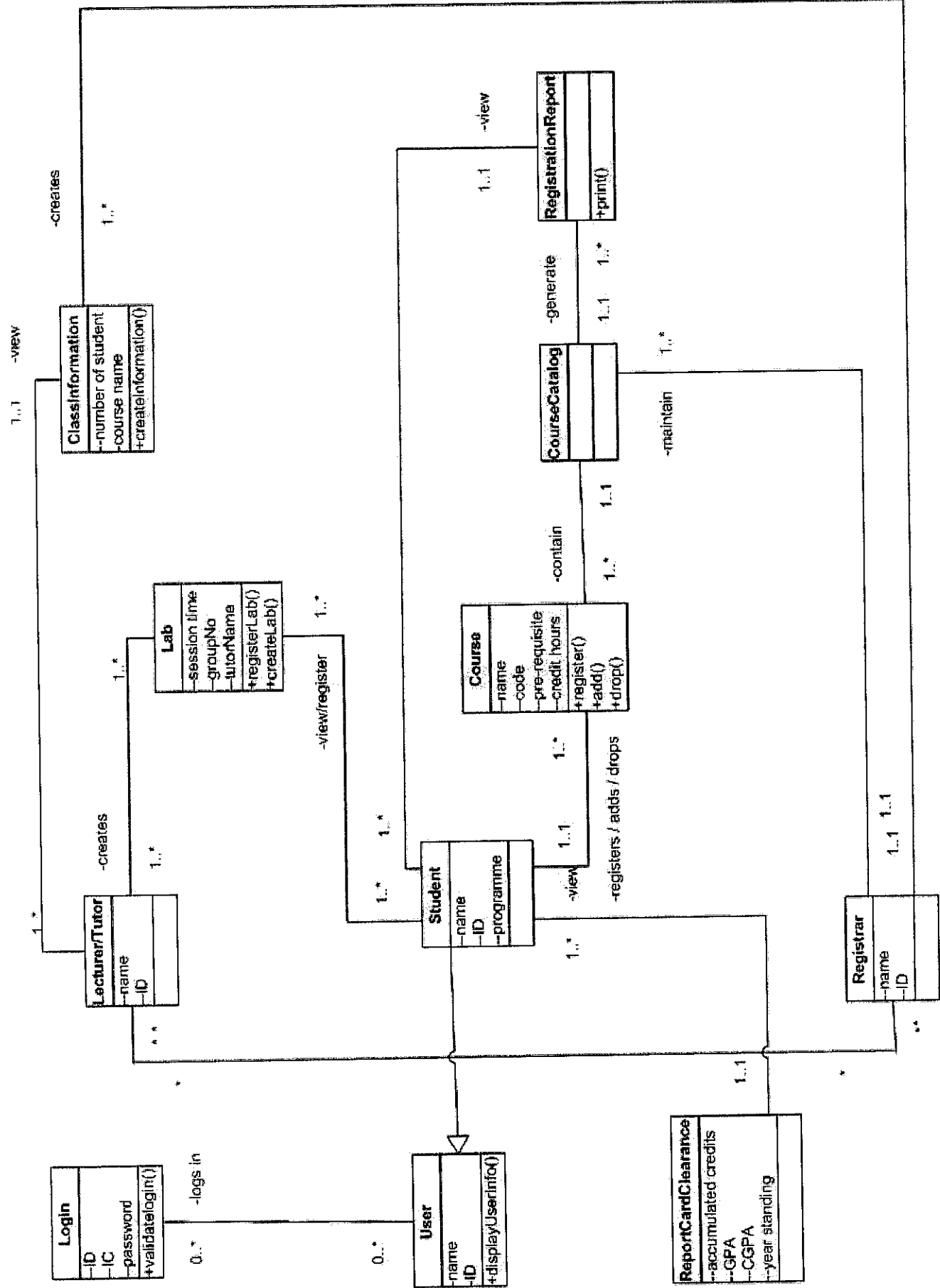
In the early of planning phase, all the use case, class diagram and sequence diagram also develop to have a better analysis about the system. The system modeling is as below:

3.1.1 Design the UML Diagram

A. Use Case Diagram:

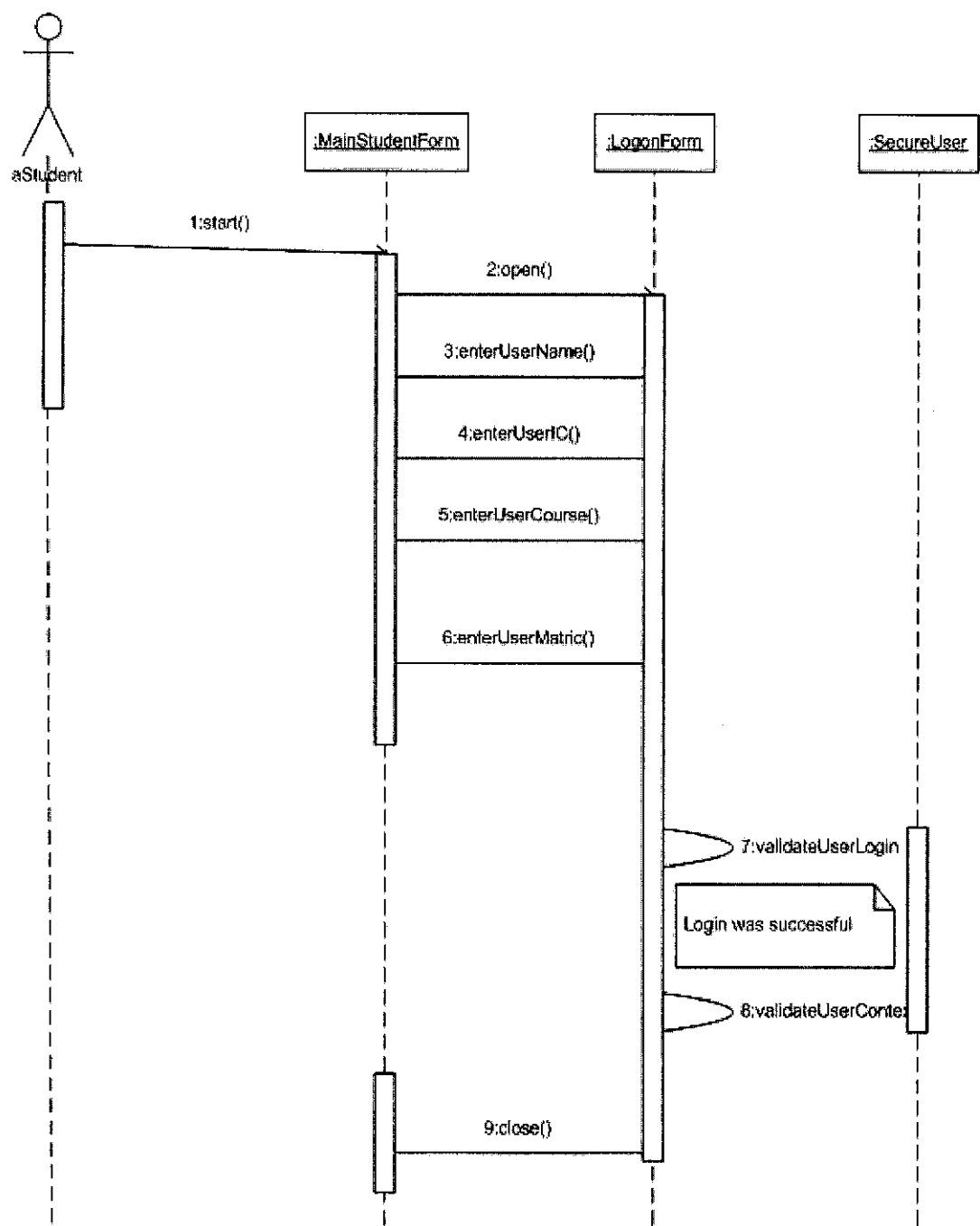


B. Class Diagram:

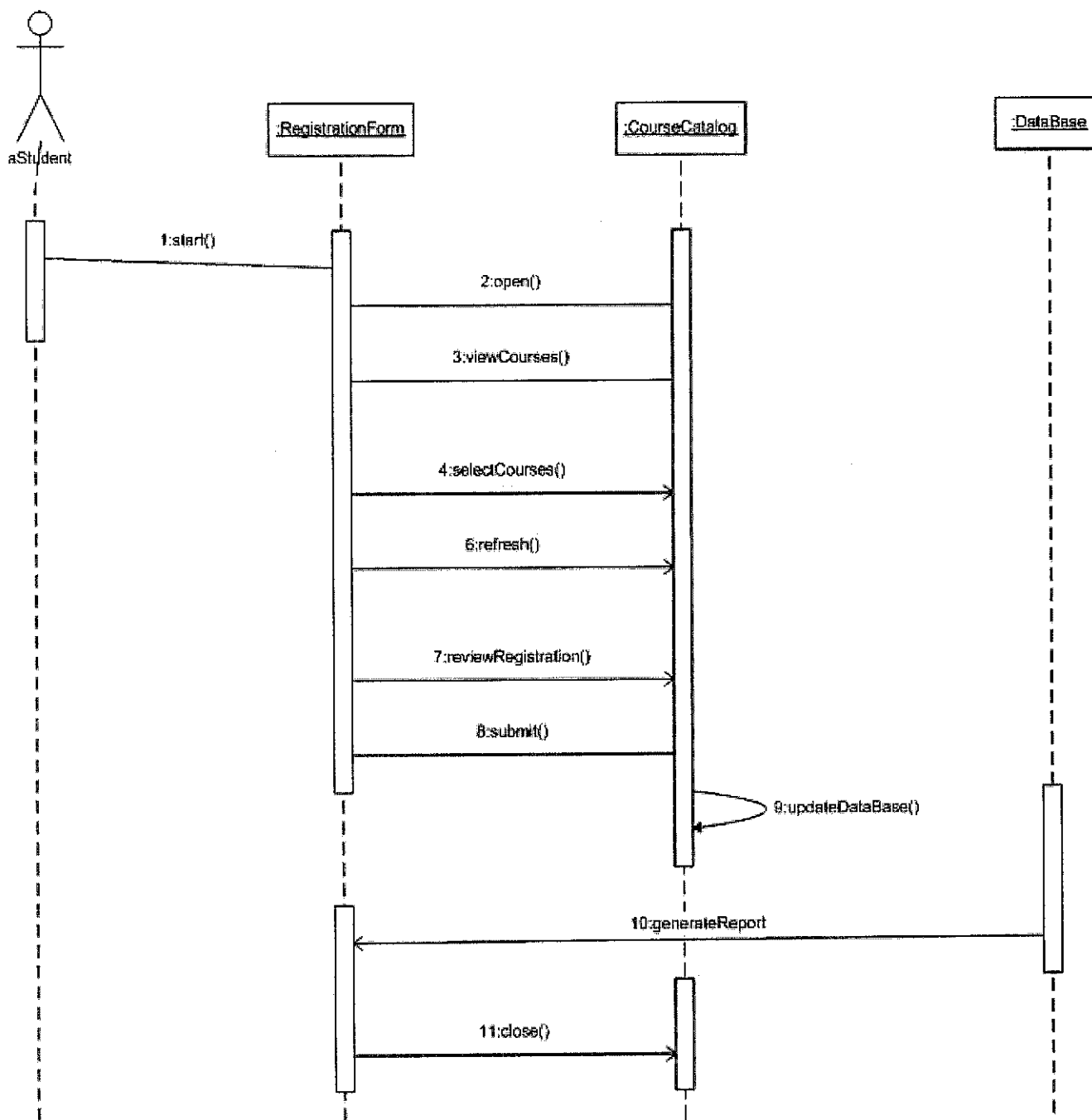


C. Sequence Diagram:

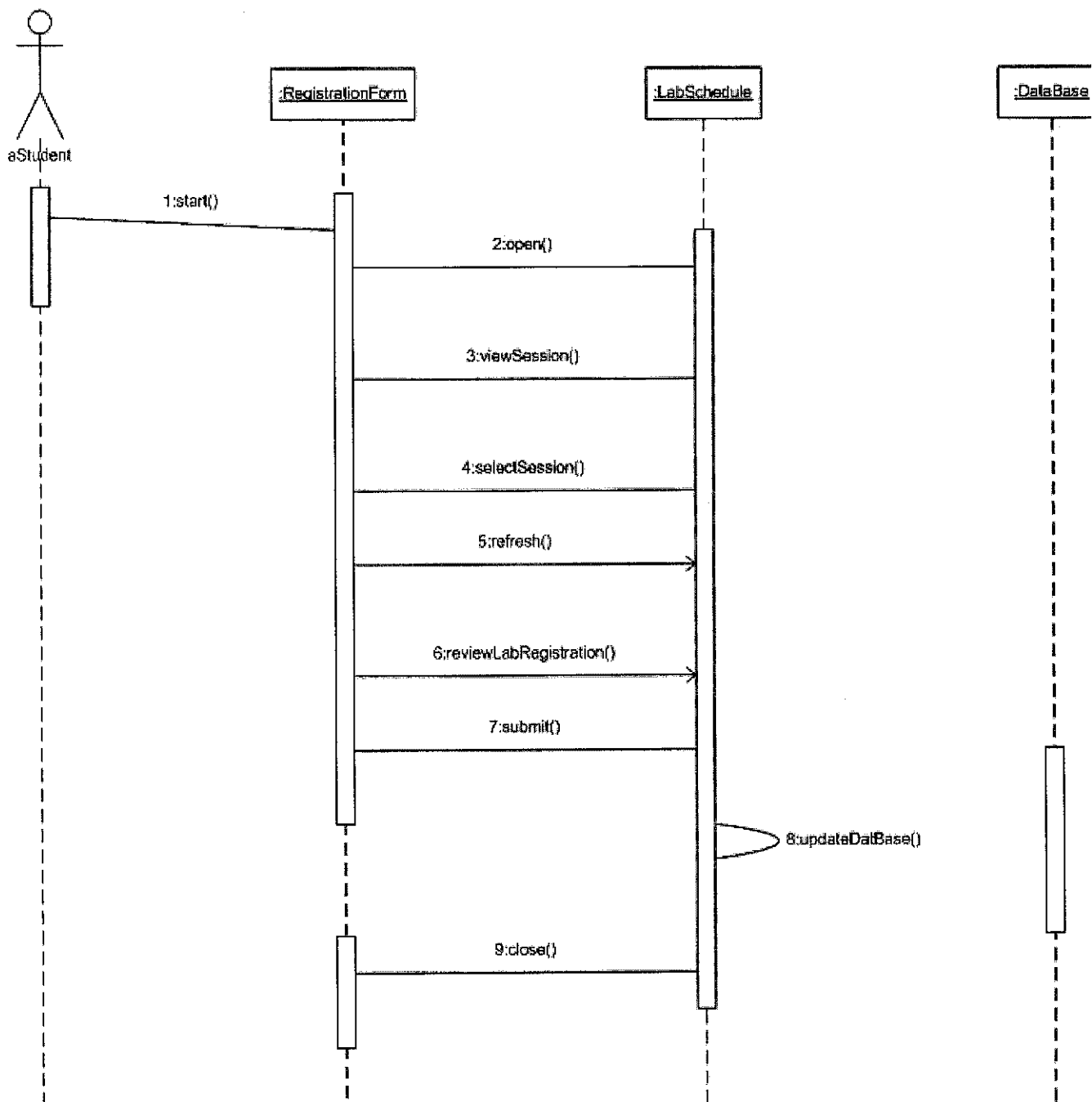
1) LOGIN Sequence Diagram:



2) Register for Courses Sequence Diagram:



3) Registration for Lab Session Sequence Diagram:



3.2 Design phase

There will be six modules in this system, main modules as follow::

2.1 Module 1

- *Function:*
 - Online Course Registration
- *Description:*
 - This module allows students to register their courses online. The registered courses are the courses that they will be taking for the next semester.
- *Inputs:*
 - User details: Name, Matric Number, Course, Identification Card(I/C) number
 - Confirmation of courses registered
- *Outputs:*
 - Display :
 - Courses selected
 - Total number of credit hours registered
 - Confirm successful registration process
- *Sources:*
 - System users(Students)
 - Database server
- *Processes:*
 1. Go to web link
 2. Enter details
 3. Click Refresh
 4. Select courses based on year tabs
 5. Click Refresh
 6. View selected courses and total registered number of credit hours
 7. Confirm selection OR make amendments as necessary
 8. Click Submit

9. View message notifying that course registration has been successful upon exiting module

10. View report upon exiting module

- *Requirements:*

- Students are required to register within a certain time period before the current semester ends
- Students must ensure that they submit only ONE(1) entry per registration
- Any further amendments will be done during the add/drop period
- Students must ensure that their courses and course codes are correct upon submission

- *Pre-condition:*

- Academic announcement that the Online Course Registration period has commenced.

- *Post-condition:*

- Module 2, Module 6

2.2 Module 2

- *Function:*

- View Registered Courses

- *Description:*

- This module allows students to view their pre-registered courses once the registration period has ended. Any amendments will be done during the Add/drop period.

- *Inputs:*

- Students' matric number
- Database server

- *Outputs:*

- Display pre-registered courses

- *Sources:*

- Database server
- Students

- *Processes:*
 1. Go to web link
 2. Enter matric number
 3. Click GO
 4. View pre-registered courses
 5. View report upon exiting module
- *Requirements:*
 - Students should see all pre booked courses, or else any corrections required can be done during confirmation of registration during the 2 week add/drop period
- *Pre-condition:*
 - After Module 1 has been completed.
- *Post-condition:*
 - Module 3. Module 6

2.4 Module 3

- *Function:*
 - View Confirmed Registered Courses
- *Description:*
 - This module is activated once the add/drop process has ended. It allows students to view the registered courses which are final.
- *Input:*
 - Students' matric number
- *Outputs:*
 - Students final registered courses
 - Total number of credit hours registered
- *Sources:*
 - Students
 - Database server
- *Processes:*
 1. Go to web link first.

2. Enter matric number
 3. Click GO
 4. View confirmed registered courses and the total number of credit hours registered.
 5. View report upon exiting system.
- *Requirements:*
 - Any entries that require correction should be reported to the Registration Unit immediately as these courses will be considered final if there are no complaints for correction and are final for billing and examination purposes.
 - *Pre-condition:*
 - Module 1, 2, 3
 - *Post-condition:*
 - Module 5

2.5 Module 4

- *Function:*
 - Lab Session Registration (NEW)
- *Description:*
 - This module displays the relevant details concerning lab registration of courses upon registering for that particular course. It allows students to pre-register their lab sessions to avoid any clashes and inform students of lab sessions which are already fully booked. It also displays contact details of lab administrators that should be contacted if there should be anything to clarify concerning the lab sessions that are available.
- *Inputs:*
 - Selection of particular courses which require students to attend lab sessions
 - Students' selection of particular lab session
- *Outputs:*
 - Display:
 - total number of students allowed for every session

- session times
- session dates
- session venues
- tutor name and contact details
- available places left per session or lab sessions which are already fully booked
- *Source:*
 - Database server
- *Processes:*
 1. Browser for lab registration will pop up once a course that require students to attend lab session has been selected
 2. View details of lab sessions
 3. Select lab session
 4. View confirmation that registration for that particular lab session has been successful and its relevant details(session time, date, venue, lab tutor's contact details)-Display Report
 5. Go back to Module 3 and follow perform consecutive processes
- *Requirements:*
 - Registration for a session should not exceed the allocated total number of students per session
 - If the number of students per session has been filled, that particular lab session would be announced as FULL and will not receive anymore entries.
 - If all lab sessions are full and there are still students who have not registered, new sessions will be opened by default.
- *Pre-condition:*
 - Module 3
- *Post-condition:*
 - None
 -

2.6 Module 5

- *Function:*
 - View Reports (NEW)
- *Description:*
 - This module allows users to view every activity done upon completion of each module and keeps a log record to inform users of whether the system is aware of the changes that has been done to the users' account and sends appropriate responses to the activities that are completed.
- *Inputs:*
 - Users' selection to exit the module.
- *Outputs:*
 - Activity Log containing:
 - Activity performed
 - Frequency of users' log in to the system
 - Confirmation that the particular activity has been successfully recorded into the system
 - Reminders of consecutive processes to be performed and their datelines
- *Sources:*
 - Database Server
 - Students selection
- *Processes:*
 1. Click exit
 2. View report on activity completion
- *Requirements:*
 - Students have to adhere to the various requirements in the module before they are allowed to exit the module
 - Should there be any incomplete or erroneous entries, error messages will be displayed and that particular entry will not be entered into the system.
- *Pre-condition:*
 - All Modules
- *Post-condition:*

- None.

2.7 Module 6

- *Function:*

- View User Information(NEW)

- *Description:*

- This module allows users to view their individual current database in the server concerning various information that they will find useful to select the courses which they would want to take for the next semester and help plan their programme structure. Meanwhile, they can also view their timetable to avoid any clashes. Students can also view various tips and guidelines on selecting the appropriate courses and registration processes.

- *Inputs:*

- Students' matric number
- request for online help
- request for various information

- *Outputs:*

- Student details:
 - Name
 - Matric number
 - Year
 - Programme of study
 - Total number of credit hours completed
 - Graduation status(Undergraduate, foundation, postgraduate, others)
 - Cumulative Grade Point Average (CGPA)
- Course details
 - Course code
 - Course description
 - ✓ Course prerequisite
 - ✓ Lecture hours
 - ✓

- ✓ Venue
- ✓ Other relevant details
- ✓ Available number of places for the semester
- Timetable
 - Students' individual timetable
 - Module timetable
- Dynamic help
 - Frequently Asked Questions(FAQ)s
 - Programme structure
 - tips and guidelines

Sources:

- Database server
- Students' selection

Processes:

1. Display students' details upon entering system
2. Display course details upon selection of course
3. Display dynamic help upon request by clicking the hyperlink
4. Display timetable upon completion of courses selected.

Requirements:

- Students need to select the appropriate links to view any information in the database.

Pre-condition:

- Various Modules

Post-condition:

- Module 5

USER INTERFACE DESIGN

A. LOGIN Interface:

Sign In	Welcome!!!
<p>Matrik No</p> <input type="text"/>	<p>ONLINE COURSE REGISTRATION SYSTEM provides registered users with the ease to register for course online from the convenience of their own computer</p>
<p>IC/Passport No</p> <input type="text"/>	
<p>Password</p> <input type="password"/>	
<p><input type="button" value="Login"/> <input type="button" value="Cancel"/></p>	

Figure 1: Login Interface

B. Animated Navigation:

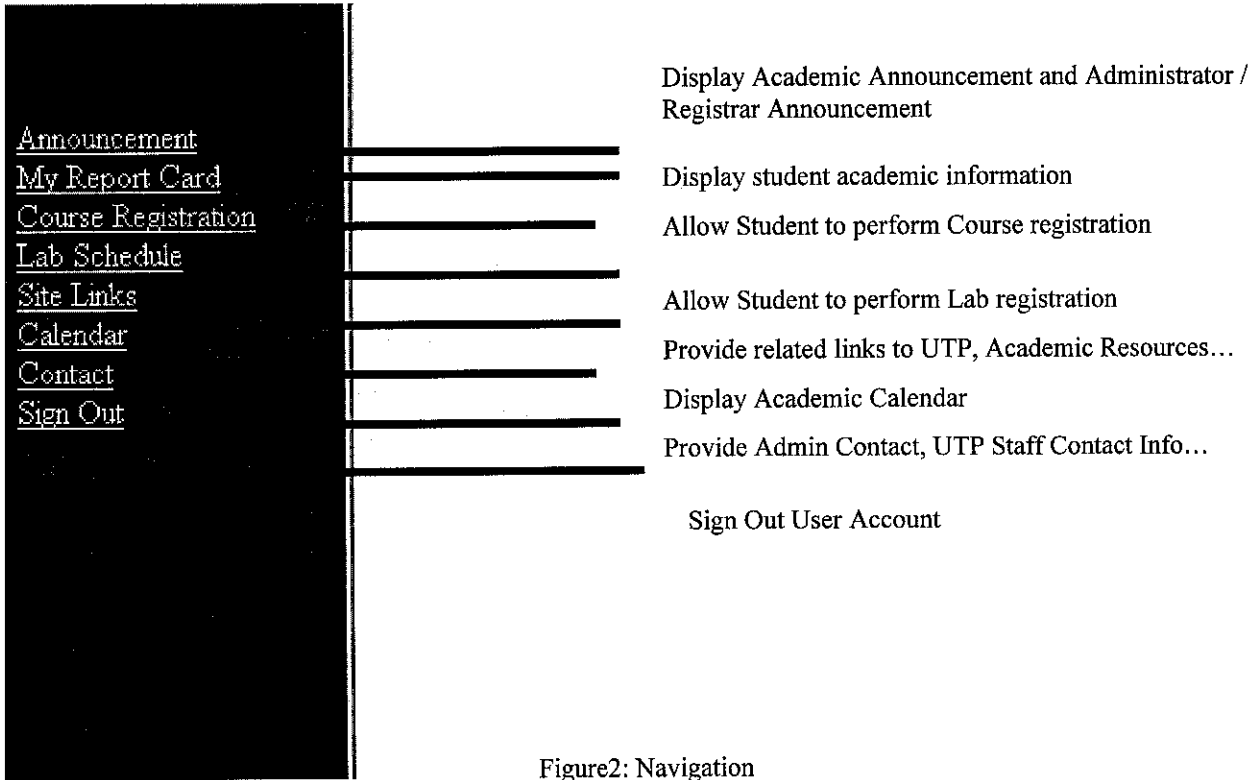


Figure2: Navigation

C. Function-based Interface Design:

1) Course Registration Interface:

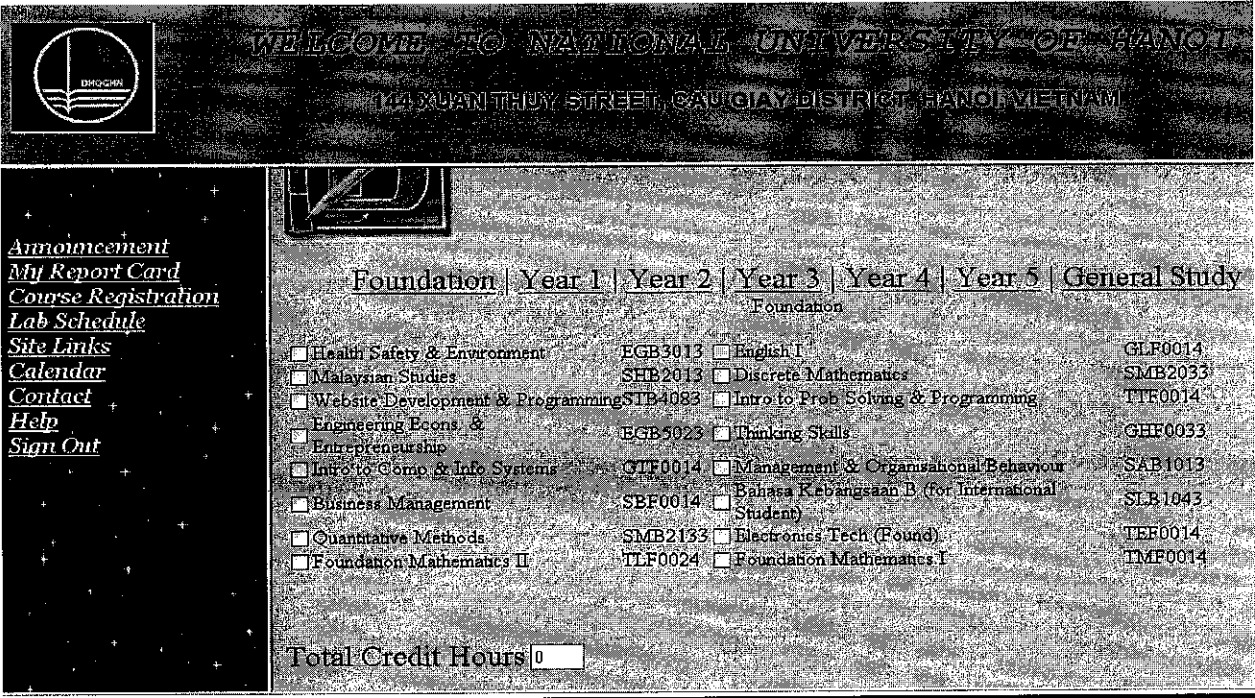


Figure 3a: Course Registration Interface

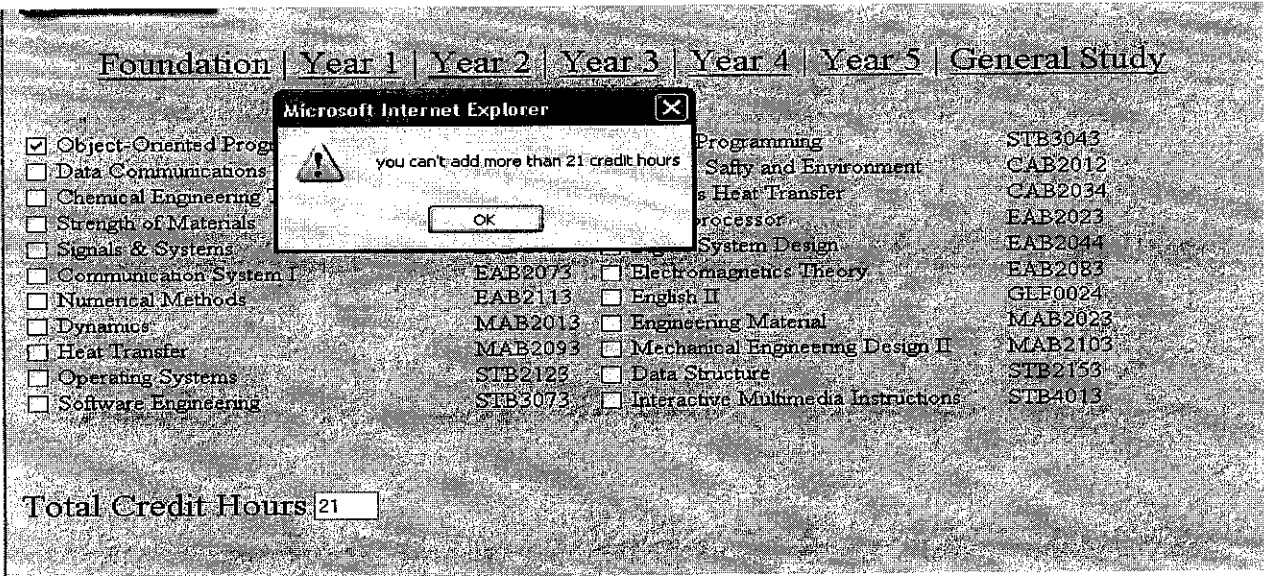


Figure 3b :View Course

Total Credit Hours


Course Registered

Refresh

English I	GLF0014
Discrete Mathematics	SMB2033
Engineering Econs.	EGB5023
Thinking Skills	GHF0033
Business Management	SBF0014
Bahasa Kebangsaan B (for International Student)	SLB1043
Electronics Tech (Found)	TEF0014

Figure3c: List course registered

2) Lab Registration Interface:



WELCOME TO NATIONAL UNIVERSITY OF HANOI
144 XUAN THUY STREET, CAU GIAY DISTRICT, HANOI, VIETNAM

Announcement

Report Card

Lab Registration

Schedule

Links

Calendar

Contact

Logout

Subject(s) registered Successfully

Available Lab

No	Lecturer name	Location	Start	End	Day
----	---------------	----------	-------	-----	-----

No Available Lab To Register

Registered Lab

No	Lecturer name	Location	Start	End	Day
English I					
1	<input type="radio"/> Mrs. Chong Su Li	Tutorial Room 2, Buiding 18	12:00	13:00	Thursday

Update

Delete From Lab Time Table

Figure 4: Lab Registration Interface

3. Announcement Page Interface

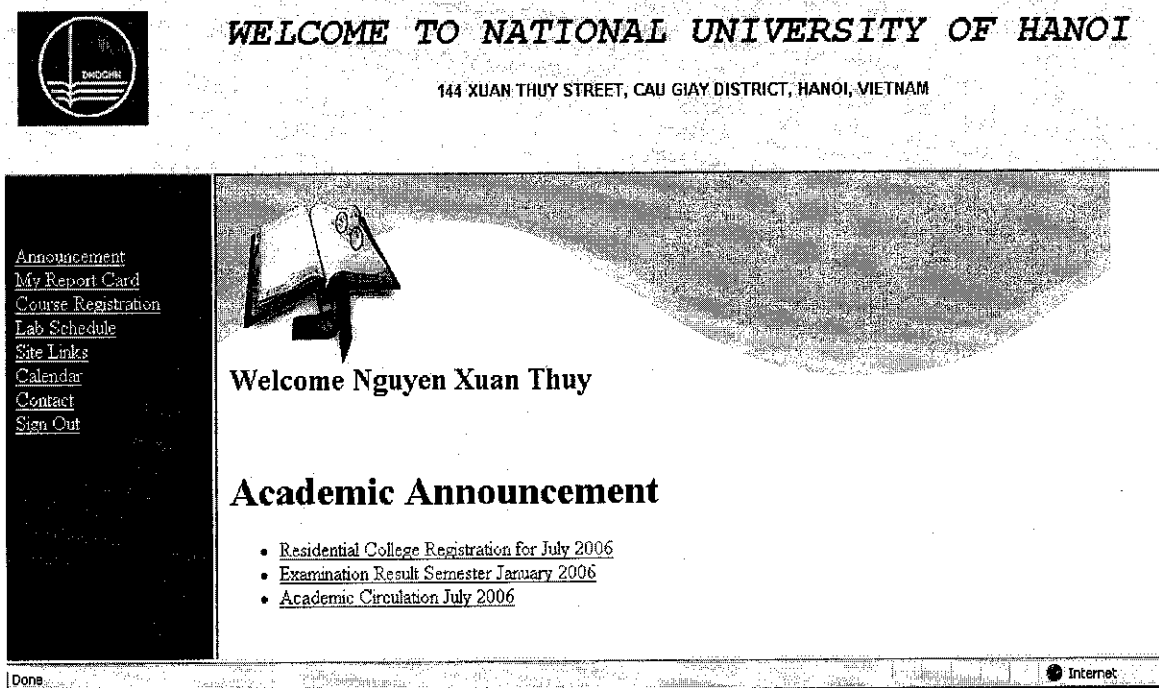


Figure 5: Announcement interface

4. View Report Card Interface



Figure 5b: My report card Interface

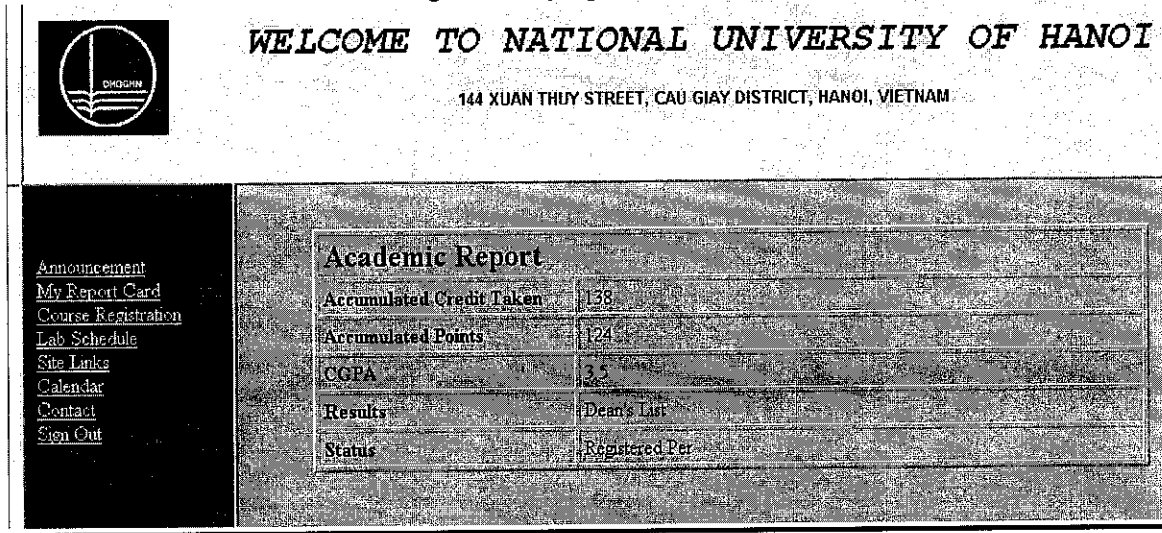


Figure 5c: View my report card Interface

3.3 DEVELOPMENT PHASE.

The main purpose of this phase is to establish the relationship between the elements in previous phase into one general idea. This is a combination of planning and analysis phase with the design phase using technique of programming to make system work properly.

In the development phase, three main functions are developed: view Report card, Course Registration and Lab Registration.

3.3.1 View Report Card

The purpose of this function is to reload the student personal information from the database such as Name, ID, Course, Academic year, Sponsor, total number of credit hour they have until now, CGPA and the status(decide whether student have permission to register for the course).

The information of students is store in the database and only administrator and student can view the record.

By provide this function, student can always aware about their information details and check total how many credit hours they have taken until the time they register for the course. In view report card, student also can check the CGPA for all the semester from previous until now. And the status field will tell the student whether they have qualify to register for the course or not and some course offer for final year student only.

3.3.2 Course Registration

This is the most important function of the system. User can easily choose to register by click the “course registration” at the navigation toolbar. The main window for registration will appear with six tabs, each tab is representative for academic year such as foundation, year 1, year 2, year 3, year 5 and general study (figure 3a and 3b). The student in each year will register for the course base on their academic year. They just need to click the checkbox and it'll automatically add to the student's list of registered course. Every time student click, the pop up window will appear and prompt the user that the course has been add to the list. If user unchecks the checkbox, the course also auto removes to the course registered list. After register for the course, the full list course registered will appear at the window below and total number of credit for the semester. Student only can register less than 21 credit hours per semester, if student register over 21 credits he or she will receive a prompt message said that “you cannot register over 21 credit hours”.

Student don't have to process and wait for long time to register because every time they click add or remove the course, the record will be auto add to the database. During the registration period (example 1 week), they can add or remove add much as possible. So when they re login to the system, the course list will appear at the window. After the registration period, student cannot add or remove the course anymore.

3.3.3 Lab Registration

The purpose of this function is to help student to pre – registered for the lab session for the course they register if has.

When the student wants to register, he or she must click the lab schedule in the navigation tool bar first. The lab schedule appears with the list of subject. If student click to the subject, a new window is come out and have the details schedule for each subject (Figure 4a).The subject has the lab and also has the schedule for each session. Student will click to the check box for the lab session they want, and each session is not greater than 40 students. If the session reach the 40 students register, there will be a pop up message inform that the session has been full and tell user to choose another session.

After choose the lab session, student has to click the button “register” to submit the form. The list of student register for the course will be sent to lecturer before the semester started. (Figure 4b)

3.4 TESTING AND IMPLEMENTATION

The system is testing module by module in personal computer. Each module will be test right after finishing the programming part. During the testing, there are still some error and not stable but they are all fix in the short period of time.

The software and hardware support well in the testing phase. The testing is done by project manager and other student in the house to check whether it works properly or not.

Tools using to develop the system are:

- Html tools
- PHP My Admin

in order to develop and implement this system.

The reason we use this programming language is because I have basic in this programming language since the previous semester. It is very easy to develop and it can produce nicer user interface without much coding and in a short time compare with other programming language. Moreover it is very user friendly. The users do not have to have programming background in order to use the end product. Compare with other software that I've been study before, this programming language is less complicated, more useful and provide flexible to create the User Interface. The source for reference is also provide, I can search from internet, library and many other source.

Other than that, we will use PHP My Admin to store the information. The reason I choose this method is because it is not as complicated as using Oracle which use System Query Language (SQL).

Hardware Requirements

- Personal Computer / Desktop or Laptop
- Window XP
- Pentium 4 processor 1.4GHz or higher
- 128MB RAM or higher
- 1GB hard disk and above

Software Requirements

- Macromedia Dream weaver
- PHP MySQL
- Apache
- Microsoft Office

CHAPTER 4

RESULT AND DISCUSSION

4.1 Result and Findings

During the development of this project, I have learnt and found that how the e – registration course profit users as well as manager. From the early in beginning of planning phase, I have no ideas and think that this system can be used in University in Viet Nam. From this project, it can open a new ways for technology in Vietnam when apply it to the education.

All the research and building the system is in UTP because in Viet Nam don't have any University apply this technology in their website. Most of the website of University in Vietnam is fully informative.

Base on the trip to Viet Nam last summer, I have found that this can be a chance for me to build the complete system for some technology university in Vietnam. And this can become the news things in website of all the university in Viet Nam in the future.

This system has been completed and fulfill all the requirements such as user friendly, security and always available when needed. In the security issue, user will provide an account to login to the system include student ID, IC/ Passport number and password. This is to ensure that the student information details will not seen by other and keep secret about the score of students.

“Online course Registration” system for NUH includes three main functions which are: register for the courses, view report card (student information and CGPA), Lab registration for the course require the lab/ tutorial.

Beside that, this system has a stable database using PHP MyAdmin. Only the administration can access to the database and change the information such as, add new

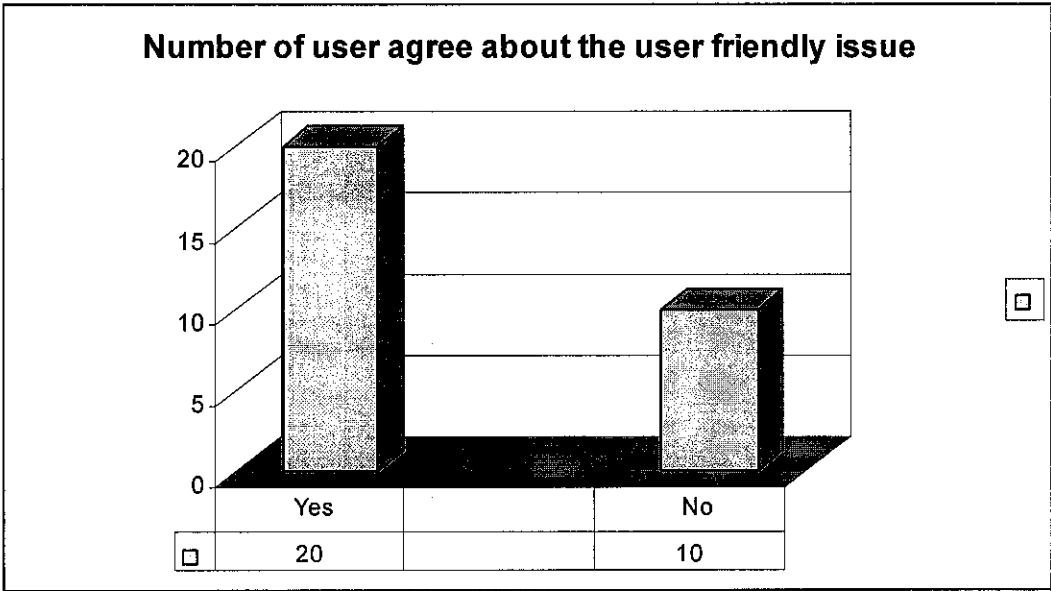
course, delete, update data. Before that, NUH using Microsoft Access to store the student information. This method is easy to use but not stable and user friendly especially when administrator want to search for specific information.

To evaluate the result of the system and estimate the usability I have come out with the survey among UTP students. The result base on the questionnaire and conduct with thirty students, fifteen of them are Vietnamese students and the rest are from Chinese, Malaysian, India and South Africa

The results are shown below:

4.1.1 This system is user friendly or not?

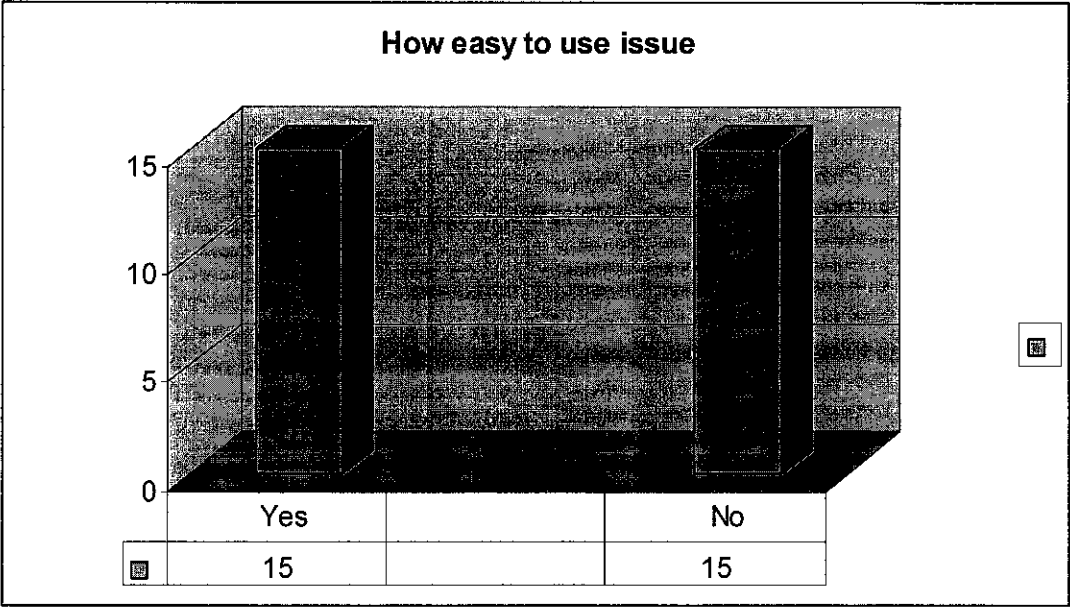
Yes	20
No	10



4.1.2 Is it easy to use?

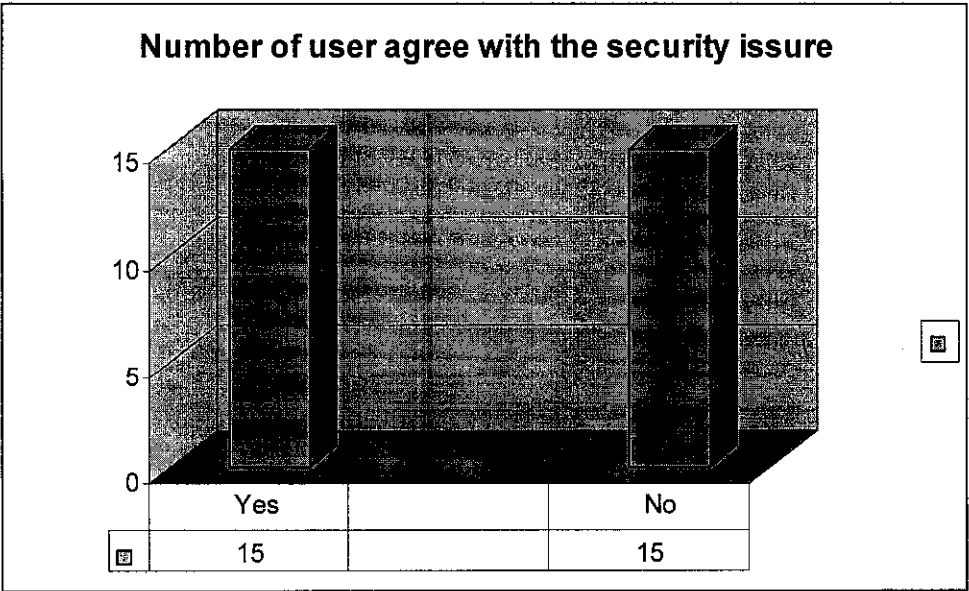
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Yes	15
No	15



4.1.3 Do you feel secure enough with your personal information?

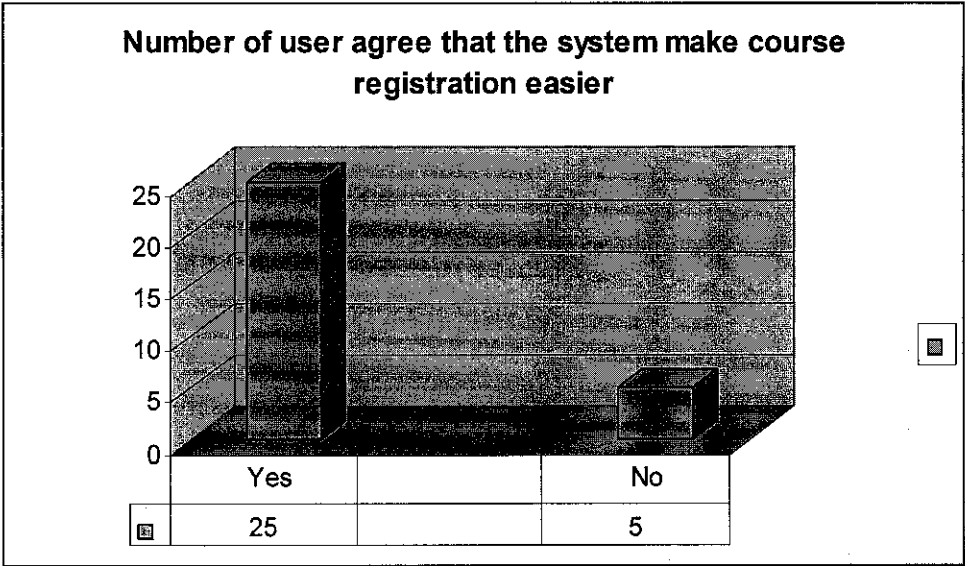
Yes	15
No	15



4.1.4 Agree that the system makes the course registration easier

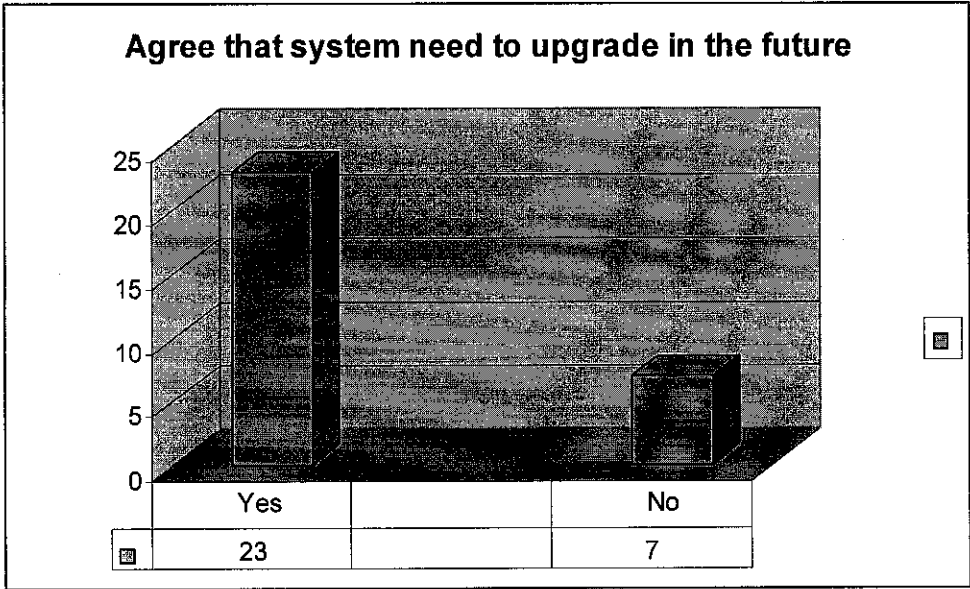
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Yes	25
No	5



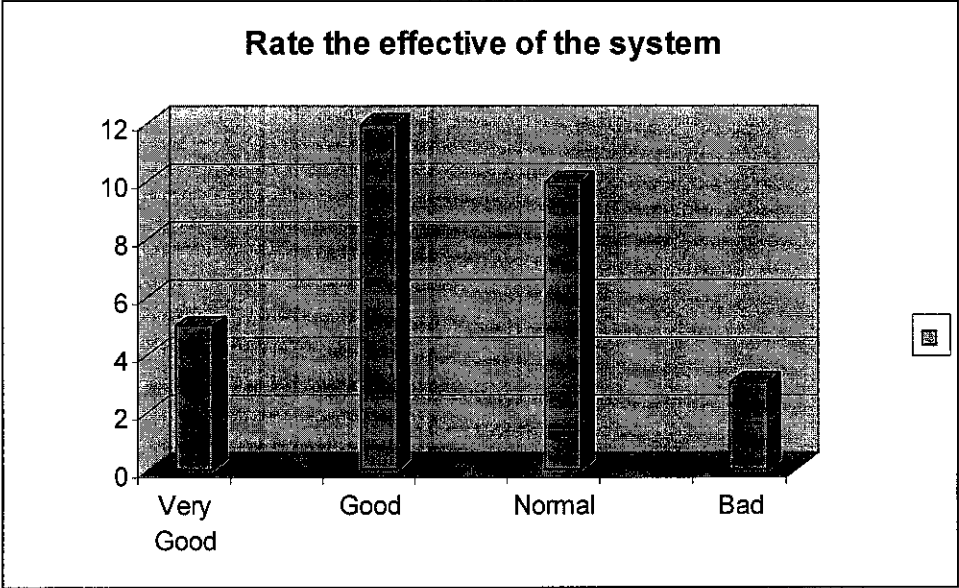
4.1.5 In the future the system needs to upgrade?

Yes	23
No	7



4.1.6 How do you rate this system? (From 0 to 10 to indicate the effective)

Very Good	5
Good	12
Normal	10
Bad	3



CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 CONCLUSION

This project is “Online Course Registration” which provides students to have many choices and user friendly system. This system is built based on the old system of UTP. In the new system, student not only allows student register for the courses, they can register for the lab, view CGPA and so on.

Also, the system can be applied in Viet Nam and need some changing to suitable with the cultures and characteristics of people in Viet Nam. Some University in Viet Nam can use the system and put it in the main web site. This system surely profit for Viet Nam because the University in Viet Nam is big and have more than ten thousand students every year.

Finally, from this project I hope that it can be use successfully in Viet Nam and also some upgrade for current system in UTP. In the future they can help many improvements and provide the good services in University in both Malaysia and Viet Nam.

5.2 RECOMMENDATION

In addition to enhance the system, some suggestion has been jot down. Firstly, the system needs to keep track the student and their records, so that they can check whether they have taken how many credits. Other than that, the system has to match the timetable every time they register for the course.

Some new function should add to the system to make it more powerful and reduce the works for Academic Center system. Such as, in the report card function student may allow to update they information details so that it can reduce the works for admin or in the academic center.

The system should be integrated with other system such as E – learning and other small system to enhance the performance of the system.

There also need to improve the administration site to allow the manager easily to control the system.

The system need to have the feed back corner in order to improve the system and get the ideas from the user. This is the best way to collect the information so that in the next time admin can improve the system successfully.

5.3 LIMITATIONS OF THE SYSTEM

Beside the strength of the system, there also exists some weakness and need to improve when possible. The first limitation of this system is when user registers for the courses, they view and check the timetable later and not sure whether their personal timetable matches with the course they registered or not. This can make the student get into the trouble for every new semester and it takes time to add and drop for the courses.

The second limitation of the system is that when student registers for lab session, they are not sure about the ability to attend that course so if they register, there will be some trouble with the lecture because they have to redo and distribute the lab session. Other than that, some student may mistakenly register for the lab and it makes the session full but the real number of student taking that course can not register.

Lastly, in the listed course, the system should divide and order by Department so that student can easily choose their course suitable for their fields instead of looking for the whole page listed course. This can reduce the errors when student registers for the courses.

5.4 FUTURE WORKS

In the future, if any student wants to continue this project they can upgrade the system and try to overcome all the limitations. Other than that, some new functions can be built to make the system more effective and benefit for organization.

For example, the system can build one or two more function to allow student to ordering book brochures online so they can read the book in advance and have time to study and deep research about the subject. The system also should have a function so that every time student register for the course, there will be a timetable match with the course that they registered.

The “online course registration” can be connected with E- learning system to enhance the integrity and other benefits to students.

Building an effective administration site to help them easy control and distribute the job among the staffs.

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APPENDICES

Survey and Questionnaires

Note: Please answer all the question below by circle it. (After you are introduce the system)

Name:

Course:

Nationality:

1. Have you ever using any “online course registration” before?
 - A. YES
 - B. NO
2. Do you feel that this system is user friendly?
 - A. YES
 - B. NO
3. This system is secure or not?
 - A.YES
 - B.NO
4. Does the system easy to use?
 - A. YES
 - B. NO
5. Do you agree that this system is easier than the system you have been used before?
 - A. YES
 - B. NO
6. Does the system need to upgrade in the future?
 - A. YES
 - B. NO
7. How you rate this system in an effective manner (From 0 to 10)

0	1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	---	----